

REMARKS

I. Claim Rejections - 35 U.S.C. § 102

The Examiner rejected claims 1-3, 5 and 7-10 under 35 U.S.C. § 102(b) as allegedly being anticipated by Griffin et al. (5,734,252). Applicant respectfully traverses the § 102(b) rejection of claims 1-3, 5 and 7-10 for at least the reasons discussed below.

Claim 1

Independent claim 1 requires, *inter alia*:

a push switch operable to be switched on and off;
a power switch connected to the push switch and operable
to allow a leakage current to flow through the power switch based
on input from the push switch;
...a protection circuit module (PCM) for turning off the
battery when the leakage current flows through the power switch

The Examiner alleged that Griffin teaches “a push switch (130, 440) operable to be switched on and off; a power switch (220, 560) connected to the push switch and operable to allow a leakage current to flow through the power switch based on input from the push switch (160, 170, 240, 250)”. (Office Action, page 2).

First, the alleged switches 130 and 440 are not push switches. Their operability is not based on being depressed, but on being controlled by their respective controllers 120 and 420. (Figs. 1 and 2). Therefore, Griffin fails to teach or suggest at least “a **push switch** operable to be switched on and off”, as recited in claim 1.

It also appears that the Examiner alleged elements 160, 170, 240, and 250 are push switches. However, the direct current inputs 160 and 170, like the direct current outputs 240 and 250, connect the cellular telephone phone 100 to the external battery charger 200. This connection in Griffin is not a push switch.

Second, the alleged power switches 220 and 560 are controlled by their respective controllers 210 and 580, so the determination for current to flow through switches 220 and 560 is made by each respective controller, not the alleged push switches 130 and 440. (Figs. 1 and 2).

Thus, Griffin fails to teach or suggest at least “a power switch connected to the push switch and operable to allow a leakage current to flow through the power switch **based on input from the push switch**”, as recited in claim 1. That is, allowing a leakage current to flow through the alleged power switches 220 and 560, in Griffin, is not based on input from the alleged push switches 130 and 440.

Based on the foregoing reasons, Applicant submits that independent claim 1 and its dependent claims 2, 3, and 5 are allowable over the applied reference.

Claim 5

The Examiner indicated that Griffin teaches “the push switch is operated via an opening (160, 240) in an outer surface of the personal telecommunication device (column 3, lines 29-35). Griffin teaches, however, “to initiate the charging process the cellular telephone 100 and battery 110 are placed in a slot of the charger 200 so that the direct current input 160 of the cellular telephone 100 is connected to the direct current output 240 of the charger 200 and the ground 250 of the charger 200.” (col. 3, lines 29-35).

Even though Griffin has a direct current input 160 (a hole) in the cellular telephone 100 to connect to the charger 200, Griffin fails to disclose a “push switch”, and Griffin thus would not teach or suggest “the push switch is operated via an opening in an outer surface of the personal telecommunication device”, as recited in claim 5. The hole, in Griffin, allows the cellular telephone to make a connection to its charger. However, the hole is not used to operate a “push switch” in Griffin.

Thus, Griffin fails to teach or suggest the subject matter of claim 5, and claim 5 is patentable over the applied reference.

Claim 7

Independent claim 7 requires:

means connected to the switch operable to allow a leakage current to flow to a battery pack based on input from the switch;

means for detecting the leakage current, and means for turning off the battery when the leakage current is detected

The Examiner alleged Griffin teaches “means (120) connected to switch (130) operable to allow a leakage current to flow to a battery pack based on input from the switch (220); the battery pack (100) including a battery (110), means for detecting the leakage current (120), and means for turning of the battery when the leakage current is detected...(element 120, column 1, lines 65-67 and column 2 lines 1-3)”. (Office Action, page 3).

Fig. 1 of Griffin shows no “battery pack”, and the element 100 identified by the Examiner is a cellular phone 100. (col. 3, line 46). Based on the circuit block diagram of Fig. 1, if controller 120 allowed a leakage current to flow, the leakage current would have to flow to battery 110, since Griffin has no “battery pack”. (Fig. 1). As seen in Fig. 1 of Griffin, the leakage current would flow through switch 130 directly to the battery 110, because there is no intermediate device, like the “battery pack”.

As well, the Examiner posited that the feature of “turning off the battery when the leakage current is detected” was met, by controller 120 opening the switch 130 connected to the battery 110 during a short circuit (low voltage). Griffin cannot be said to both allow and not allow a leakage current to flow to battery 110, as Griffin does not disclose a “battery pack” in its circuit block diagram of Fig. 1¹. Therefore, Griffin could not (and does not) teach or suggest both “means connected to the switch operable to allow a leakage current to flow to a battery pack based on input from the switch...and means for turning off the battery when the leakage current is detected”, as recited in claim 7.

For at least the foregoing reasons, Applicant submits that independent claim 7 and its dependent claims 8-10 are allowable over the applied reference.

¹ Fig. 1 of Griffin shows the switch 130 directly connected to battery 110.

II. Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claim 4 under 35 U.S.C. 35 §103(a) as allegedly being unpatentable over Griffin et al. (5,734,252) in view of Campo (6,073,033). Applicant respectfully traverses the §103(a) rejection for the reason discussed below.

Griffin is deficient vis-à-vis independent claim 1. Campo, applied for its teaching regarding Lithium-ion, Lithium-ion, and NiMH batteries, does not compensate for the deficiencies of Griffin. Griffin fails to teach or suggest the subject matter of claim 1, which is included via dependency in claim 4. Therefore, Applicant submits that dependent claim 4 is patentable at least by virtue of its dependency from claim 1, and Applicant respectfully requests the Examiner to withdraw this § 103 rejection of dependent claim 5.

The Examiner rejected claim 6 under 35 U.S.C. 103(a) as allegedly being unpatentable over Griffin et al. (5,734,252) in view of Compton et al. (4,042,836).

Griffin is deficient vis-à-vis independent claim 1. Compton, applied for its teaching regarding and FET switch, does not compensate for the deficiencies of Griffin. Griffin fails to teach or suggest the subject matter of claim 1, which is included via dependency in claim 6. Therefore, Applicant submits that dependent claim 6 is patentable at least by virtue of its dependency from claim 1, and Applicant respectfully requests the Examiner to withdraw this §103 rejection of dependent claim 5.

III. Conclusion

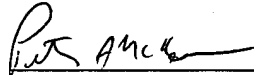
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/733,811

Attorney Docket No. Q78843

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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